

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-28. (Canceled)

29. (Previously Presented) A method of manufacturing a semiconductor device comprising:

disposing a substrate in a reaction tube;

heating the substrate in a first stage with a plurality of first light pulses, and

heating the substrate in a second stage with a plurality of second light pulses,

wherein each first light pulse has a cycle of one second or shorter,

wherein each second light pulse has a cycle of one second or longer,

wherein said each first light pulse and said each second light pulse are formed by switching on and off a lamp light source, and

wherein the lamp light source is provided outside of the reaction tube.

30. (Previously Presented) A method according to claim 29, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

31. (Previously Presented) A method of manufacturing a semiconductor device comprising:

disposing a substrate in a reaction tube;

supplying heated gas to the reaction tube;

heating the substrate in a first stage with a plurality of first light pulses, and

heating the substrate in a second stage with a plurality of second light pulses,
wherein each first light pulse has a cycle of one second or shorter,
wherein each second light pulse has a cycle of one second or longer,
wherein said each first light pulse and said each second light pulse are formed by
switching on and off a lamp light source, and
wherein the lamp light source is provided outside of the reaction tube.

32. (Previously Presented) A method according to claim 31, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

33.-36. (Canceled)

37. (Previously Presented) A method of manufacturing a semiconductor device comprising:

disposing a substrate in a reaction tube;
keeping the reaction tube under reduced pressure;
heating the substrate in a first stage with a plurality of first light pulses; and
heating the substrate in a second stage with a plurality of second light pulses,
wherein each first light pulse has a cycle of one second or shorter,
wherein each second light pulse has a cycle of one second or longer,
wherein said each first light pulse and said each second light pulse are formed by
switching on and off a lamp light source, and
wherein the lamp light source is provided outside of the reaction tube.

38. (Previously Presented) A method according to claim 37, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a

metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

39. (Previously Presented) A method of manufacturing a semiconductor device comprising:

disposing a substrate in a reaction tube;

supplying heated gas in the reaction tube while keeping the reaction tube under a reduced pressure;

heating the substrate in a first stage with a plurality of first light pulses; and

heating the substrate in a second stage with a plurality of second light pulses,

wherein each first light pulse has a cycle of one second or shorter,

wherein each second light pulse has a cycle of one second or longer,

wherein said each first light pulse and said each second light pulse are formed by switching on and off a lamp light source, and

wherein the lamp light source is provided outside of the reaction tube.

40. (Previously Presented) A method according to claim 39, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

41.-44. (Canceled)

45. (Previously Presented) A method of manufacturing a semiconductor device, comprising:

disposing a semiconductor film, in which an impurity region of one conductive type is formed, in a reaction tube;

heating the semiconductor film in a first stage with a plurality of first light pulses;
and
heating the semiconductor film in a second stage with a plurality of second light pulses,
wherein each first light pulse has a cycle of one second or shorter,
wherein each second light pulse has a cycle of one second or longer,
wherein said each first light pulse and said each second light pulse are formed by switching on and off a lamp light source, and
wherein the lamp light source is provided outside of the reaction tube.

46. (Previously Presented) A method according to claim 45, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

47. (Previously Presented) A method for manufacturing a semiconductor device, comprising:

disposing a semiconductor film, in which an impurity region of one conductive type is formed, in a reaction tube;
supplying heated gas into the reaction tube;
heating the semiconductor film in a first stage with a plurality of first light pulses;
and
heating the semiconductor film in a second stage with a plurality of second light pulses,
wherein each first light pulse has a cycle of one second or shorter,
wherein each second light pulse has a cycle of one second or longer,
wherein said each first light pulse and said each second light pulse are formed by switching on and off a lamp light source, and

wherein the lamp light source is provided outside of the reaction tube.

48. (Previously Presented) A method according to claim 47, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

49.-52. (Canceled)

53. (Previously Presented) A method of manufacturing a semiconductor device, comprising:

disposing a semiconductor film, in which an impurity region of one conductive type is formed, in a reaction tube;

keeping the reaction tube under a reduced pressure;

heating the semiconductor film in a first stage with a plurality of first light pulses;

and

heating the semiconductor film in a second stage with a plurality of second light pulses,

wherein each first light pulse has a cycle of one second or shorter,

wherein each second light pulse has a cycle of one second or longer,

wherein said each first light pulse and said each second light pulse are formed by switching on and off a lamp light source, and

wherein the lamp light source is provided outside of the reaction tube.

54. (Previously Presented) A method according to claim 53, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

55. (Previously Presented) A method of manufacturing a semiconductor device, comprising:

disposing a semiconductor film, in which an impurity region of one conductive type is formed, in a reaction tube;

keeping the reaction tube under a reduced pressure;

supplying heated gas into the reaction tube; and

heating the semiconductor film in a first stage with a plurality of first light pulses;

and

heating the semiconductor film in a second stage with a plurality of second light pulses,

wherein each first light pulse has a cycle of one second or shorter,

wherein each second light pulse has a cycle of one second or longer,

wherein said each first light pulse and said each second light pulse are formed by switching on and off a lamp light source, and

wherein the lamp light source is provided outside of the reaction tube.

56. (Previously Presented) A method according to claim 55, wherein the lamp light source is at least one selected from the group consisting of a halogen lamp, a metal halide lamp, a high-pressure mercury lamp, a high-pressure sodium lamp, and a xenon lamp.

57.-74. (Canceled)

75. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a video camera.

76. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a digital camera.

77. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a goggle type display.

78. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a car navigation system.

79. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a sound reproduction device.

80. (Original) A method according to claim 29 wherein the semiconductor device is a personal computer.

81. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a game apparatus.

82. (Withdrawn) A method according to claim 29 wherein the semiconductor device is a portable information terminal.

83. (Withdrawn) A method according to claim 29 wherein the semiconductor device is an image playback device.

84. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a video camera.

85. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a digital camera.

86. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a goggle type display.

87. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a car navigation system.

88. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a sound reproduction device.

89. (Original) A method according to claim 31 wherein the semiconductor device is a personal computer.

90. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a game apparatus.

91. (Withdrawn) A method according to claim 31 wherein the semiconductor device is a portable information terminal.

92. (Withdrawn) A method according to claim 31 wherein the semiconductor device is an image playback device.

93.-110. (Canceled)

111. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a video camera.

112. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a digital camera.

113. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a goggle type display.

114. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a car navigation system.

115. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a sound reproduction device.

116. (Original) A method according to claim 37 wherein the semiconductor device is a personal computer.

117. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a game apparatus.

118. (Withdrawn) A method according to claim 37 wherein the semiconductor device is a portable information terminal.

119. (Withdrawn) A method according to claim 37 wherein the semiconductor device is an image playback device.

120. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a video camera.

121. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a digital camera.

122. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a goggle type display.

123. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a car navigation system.

124. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a sound reproduction device.

125. (Original) A method according to claim 39 wherein the semiconductor device is a personal computer.

126. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a game apparatus.

127. (Withdrawn) A method according to claim 39 wherein the semiconductor device is a portable information terminal.

128. (Withdrawn) A method according to claim 39 wherein the semiconductor device is an image playback device.

129.-146. (Canceled)

147. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a video camera.

148. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a digital camera.

149. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a goggle type display.

150. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a car navigation system.

151. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a sound reproduction device.

152. (Original) A method according to claim 45 wherein the semiconductor device is a personal computer.

153. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a game apparatus.

154. (Withdrawn) A method according to claim 45 wherein the semiconductor device is a portable information terminal.

155. (Withdrawn) A method according to claim 45 wherein the semiconductor device is an image playback device.

156. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a video camera.

157. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a digital camera.

158. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a goggle type display.

159. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a car navigation system.

160. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a sound reproduction device.

161. (Original) A method according to claim 47 wherein the semiconductor device is a personal computer.

162. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a game apparatus.

163. (Withdrawn) A method according to claim 47 wherein the semiconductor device is a portable information terminal.

164. (Withdrawn) A method according to claim 47 wherein the semiconductor device is an image playback device.

165-182. (Canceled)

183. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a video camera.

184. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a digital camera.

185. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a goggle type display.

186. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a car navigation system.

187. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a sound reproduction device.

188. (Original) A method according to claim 53 wherein the semiconductor device is a personal computer.

189. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a game apparatus.

190. (Withdrawn) A method according to claim 53 wherein the semiconductor device is a portable information terminal.

191. (Withdrawn) A method according to claim 53 wherein the semiconductor device is an image playback device.

192. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a video camera.

193. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a digital camera.

194. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a goggle type display.

195. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a car navigation system.

196. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a sound reproduction device.

197. (Original) A method according to claim 55 wherein the semiconductor device is a personal computer.

198. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a game apparatus.

199. (Withdrawn) A method according to claim 55 wherein the semiconductor device is a portable information terminal.

200. (Withdrawn) A method according to claim 55 wherein the semiconductor device is an image playback device.

201.-212. (Canceled)